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10/666,621	09/19/2003	Chungtang Tang	200209305-1	9230
22879 7590 03/18/2010 HEWLETT-PACKARD COMPANY Intellectual Property Administration 3404 E. Harmony Road Mail Stop 35 FORT COLLINS, CO 80528			EXAMINER BLAIR, DOUGLAS B	
			ART UNIT 2442	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JERRY.SHORMA@HP.COM
ipa.mail@hp.com
laura.m.clark@hp.com

Office Action Summary

Application No.

10/666,621

Applicant(s)

TANG ET AL.

Examiner

DOUGLAS B. BLAIR

Art Unit

2442

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 and 23-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 23-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

The applicant's amendment to claim 26 has overcome the 35 USC section 112 2nd paragraph rejection of claim 26 and 27. All other rejections are still applied.

Response to Arguments

Applicant's arguments filed 12/30/2009 have been fully considered but they are not persuasive.

As pointed out by the applicant, the plain language of MPEP section 2164.08 defines a single means claim as a claim "where a means recitation does not appear in combination with another recited means." With respect to the argument against the 35 USC section 112 1st paragraph rejection, it would appear that the applicant does understand the scope of claims 23-25.

Claims 23-25 appear as follows

23. (Original) A node in an overlay network, wherein the overlay network is a logical representation of a physical network, the node comprising:

means for determining first proximity information associated with a location of the node in the network;

means for searching through a map associated with a region of the overlay network using the first proximity information, wherein the map includes proximity information associated with locations of other nodes physically close in the physical network; and

means for identifying a routing node in the region of the overlay network based on the searching through the map, wherein the routing node is a node in the region physically closest to the node relative to other nodes in the region.

24. (Original) The node of claim 23, wherein the node comprises means for storing routing information for the routing node in a routing table, such that messages transmitted to the region of the routing node are transmitted to the routing node.

25. (Original) The node of claim 23, further comprising: means for storing the map for the region; and means for updating the stored map in response to detecting predetermined changes to the network.

To help illustrate that claims 23-25 cover a single means claim the examiner presents a rewording of claims 23-25 with an identical scope and meaning to claims 23-25:

A node in an overlay network, wherein the overlay network is a logical representation of a physical network, the node comprising:

means for determining first proximity information associated with a location of the node in the network,

searching through a map associated with a region of the overlay network using the first proximity information, wherein the map includes proximity information associated with locations of other nodes physically close in the physical network,

identifying a routing node in the region of the overlay network based on the searching through the map, wherein the routing node is a node in the region physically closest to the node relative to other nodes in the region,

storing routing information for the routing node in a routing table, such that messages transmitted to the region of the routing node are transmitted to the routing node,

and updating the stored map in response to detecting predetermined changes to the network.

Claiming the same means multiple times does not change the fact that only a single means (the processor) is actually being claimed.

As to the prior art rejections the applicant's arguments are not persuasive. With respect to Xu, the applicant argues that Xue fails to teach searching through a map associated with a region of the overlay network using first proximity information. In response the applicant is urged to read the third paragraph of the Summary of Xu which directly contradicts this argument. In order to further prosecution the applicant needs to explain how the claims, as defined by the applicant's specification are different from what is disclosed by Xu.

As to the arguments against Tzamalouka, they are not persuasive. In Tzamalouka, the geographic database stores "proximity information associated with locations of nodes physically

close in the physical network" because by storing all location information the geographic database by default stores "nodes physically close in the physical network". Also, the VPTN in Tzamalouka is the overlay network and it is clearly "associated" with the geographic database and therefore satisfies the claimed relationship.

As to the arguments against the 103 rejections, the applicant has alleges that the rejections do not meet the requirements of 103 without providing any specific example of how the rejections do not meet the requirements. The Examiner contends that the rejections would not be set forth if it was believed that the rejections did not meet the requirements necessary.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 23-25 are rejected under 35 U.S.C. 112, first paragraph, as being drawn to a single means claim. Section 2164.08(a) of the MPEP states that "A single means claim, i.e., where means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph". In the instant case the applicant's Appeal Brief supplement filed on 6/19/2009 states that the claimed means is a processor. The applicant is not entitled to a claim for a processor as the applicant has not disclosed anything novel about a processor. The applicant does not put the public in possession

of any information about a processor. Means plus function claims are appropriate for claiming elements that are novel with respect to the applicant's invention and not common computer elements.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 5-16 and 23-27 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 7,266,125 to Xu et al.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

As to claim 1, Xu teaches a method of identifying a close-by node in a region of an overlay network, wherein the overlay network is a logical representation of a physical network (col. 4, lines 20-29), the method comprising: determining first proximity information associated with a location of a first node in the physical network (col. 4, lines 20-29); searching through a

map associated with a region of the overlay network using the first proximity information, wherein the map includes proximity information associated with locations of nodes physically close in the physical network (col. 4, lines 20-29, the expressway network provides the claimed "map". col. 2, lines 26-47 show that the expressway network is considered a "mapping"); identifying a routing node in the region of the overlay network based on the searching through the map, wherein the routing node is a node in the region physically closest to the first node in the physical network relative to other nodes in the region (col. 7, lines 54-60, the located expressway node satisfies the claim language which does not specifically define a "routing node").

As to claim 2, Xu teaches the method of claim 1, wherein searching through a map associated with a region of the overlay network using the first proximity information, further comprises: comparing proximity information in the map associated with a plurality of nodes in the overlay network to the first proximity information to identify the node in the region physically closest to the first node in the physical network (col. 7, lines 54-60).

As to claim 3, Xu teaches the method of claim 1, further comprising: storing routing information for the routing node in a routing table for the first node, such that messages transmitted to the region of the routing node are transmitted to the routing node in the region from the first node wherein the first node is located in another region in the overlay network (this claim does not define what "another" region is in relation to. The expressway nodes taught by Xu satisfy the claimed routing node).

As to claim 4, Xu teaches the method of claim 1, wherein the overlay network is an expressway content addressable overlay network and the first node and the routing node are expressway routing nodes in the overlay network (col. 4, lines 20-29).

As to claim 5, Xu teaches the method of claim 1, further comprising storing the map in nodes logically close in the overlay network, such that the proximity information in the map for the nodes physically close in the physical network is stored in the nodes logically close in the overlay network (col. 7, lines 46-53).

As to claim 6, Xu teaches the method of claim 1, further comprising generating the proximity information for the map by performing steps of selecting landmark nodes in the physical network (col. 4, lines 48-56); determining distances to the landmark nodes for the nodes in the overlay network (col. 4, lines 57-60); determining landmark vectors for the nodes in the overlay network based on the determined distances to the landmark nodes (col. 6, lines 47-61); mapping the landmark versions to points in the region of the overlay network (col. 6, line 62-col. 7, line 4); and storing the landmark vectors at nodes associated with the points in the region as the proximity information for the map (col. 6, line 47-col. 7, line 4).

As to claim 7, Xu teaches the method of claim 6, wherein selecting landmark nodes in the physical network comprises randomly selecting nodes in the physical network to be the landmark nodes (col. 4, lines 48-56).

As to claim 8, Xu teaches the method of claim 6, wherein mapping the landmark vectors to points in the region in the overlay network further comprises: assigning landmark numbers to grids in a landmark space (col. 6, line 47-col. 7, line 45); identifying a grid of the grids where each landmark vector is located in the landmark space (col. 6, line 47-col. 7, line 45); assigning

one of the landmark numbers to each of the landmark vectors based on the grid where the a respective landmark vector is located (col. 6, line 47-col. 7, line 45); and mapping the landmark numbers from the landmark space to the overlay network using a space filling curve, wherein the landmark space is an n-dimensional space and the overlay network is an m-dimensional space, and $n > m$ (col. 6, line 47-col. 7, line 45).

As to claim 9, Xu teaches a method of identifying a node in a region of an overlay network, wherein the overlay network is a logical representation of a physical network, the method comprising: determining first proximity information associated with a location of a source node in the physical network (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53); searching through a map associated with a target region of the overlay network using the first proximity information, wherein the map includes proximity information associated with locations of nodes physically close in the physical network (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53); and identifying a subset of nodes in the target region closest to the first node in the physical network based on the searching through the map (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 10, Xu teaches the method of claim 9, further comprising: determining distances from the source node to the subset of nodes; and selecting from the subset of nodes a node closest to the source node in the physical network based on the determined distances (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 11, Xu teaches the method of claim 10, further comprising: entering the selected closest node in a routing table for the source node, wherein the selected closest node is

used by the source node to route messages to the target region (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 12, Xu teaches the method of claim 9, further comprising generating proximity information for nodes in the overlay network, the generated proximity information including the first proximity information and the proximity information for the map, wherein generating the proximity information comprises: selecting landmark nodes in the physical network; determining distances from a substantial number of nodes in the overlay network to the landmark nodes; determining locations in the physical network for the substantial number of nodes based on the determined distances to the landmark nodes (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 13, Xu teaches the method of claim 12, wherein the locations comprise landmark vectors for the substantial number of nodes, wherein the landmark vectors include components representing distances from each of the substantial number of nodes to each of the landmark nodes (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 14, Xu teaches the method of claim 9, further comprising: identifying a location of a node in the target region in the overlay network storing the map; and transmitting a map lookup request to the node in the target region (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 15, Xu teaches the method of claim 14, wherein identifying a location of a node in the target region storing the map further comprises hashing a landmark number associated with the target region using a hash function (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 16, Xu teaches the method of claim 15, wherein the hash function comprises a space filling curve (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 23, Xu teaches a node in an overlay network, wherein the overlay network is a logical representation of a physical network, the node comprising: means for determining first proximity information associated with a location of the node in the network (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53); means for searching through a map associated with a region of the overlay network using the first proximity information, wherein the map includes proximity information associated with locations of other nodes physically close in the physical network (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53); and means for identifying a routing node in the region of the overlay network based on the searching through the map, wherein the routing node is a node in the region physically closest to the node relative to other nodes in the region (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 24, Xu teaches the node of claim 23, wherein the node comprises means for storing routing information for the routing node in a routing table, such that messages transmitted to the region of the routing node are transmitted to the routing node (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 25, Xu teaches the node of claim 23, further comprising: means for storing the map for the region; and means for updating the stored map in response to detecting predetermined changes to the network (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 26, Xu teaches the method of claim 1, further comprising: for each of the first node and the nodes in the region, identifying an overlay node based on proximity of the respective node; and for each of the first node and the nodes in the region, storing the proximity information in the respective overlay node, wherein nodes physically close based on their proximity information are stored in overlay nodes that are close in the overlay network (col. 4, lines 20-29, col. 6, line 47-col. 7, line 4, and col. 7, lines 46-53).

As to claim 27, Xu teaches the method of claim 27, further comprising retrieving the map from the overlay node storing the proximity information for one or more of the nodes in the region (Figures 2-6 and corresponding text).

Claims 1-3, 5, 9-14 and 23-25 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Number 6,862,500 to Tzamalouka.

As to claim 1, Tzamalouka teaches a method of identifying a close-by node in a region of an overlay network, wherein the overlay network is a logical representation of a physical network (col. 5, lines 3-35), the method comprising: determining first proximity information associated with a location of a first node in the physical network (col. 5, lines 3-35); searching through a map associated with a region of the overlay network using the first proximity information, wherein the map includes proximity information associated with locations of nodes physically close in the physical network (the central geographic database is the map); identifying a routing node in the region of the overlay network based on the searching through the map, wherein the routing node is a node in the region physically closest to the first node in the physical network relative to other nodes in the region (the closest mobile egress point is the claimed routing node).

As to claim 2, Tzamalouka teaches the method of claim 1, wherein searching through a map associated with a region of the overlay network using the first proximity information, further comprises: comparing proximity information in the map associated with a plurality of nodes in the overlay network to the first proximity information to identify the node in the region physically closest to the first node in the physical network (col. 5, lines 3-35).

As to claim 3, Tzamalouka teaches the method of claim 1, further comprising: storing routing information for the routing node in a routing table for the first node, such that messages transmitted to the region of the routing node are transmitted to the routing node in the region from the first node wherein the first node is located in another region in the overlay network (col. 5, lines 3-35).

As to claim 5, Tzamalouka teaches the method of claim 1, further comprising storing the map in nodes logically close in the overlay network, such that the proximity information in the map for the nodes physically close in the physical network is stored in the nodes logically close in the overlay network (col. 5, lines 3-35).

As to claim 9, Tzamalouka teaches a method of identifying a node in a region of an overlay network, wherein the overlay network is a logical representation of a physical network, the method comprising: determining first proximity information associated with a location of a source node in the physical network (col. 5, lines 3-35); searching through a map associated with a target region of the overlay network using the first proximity information, wherein the map includes proximity information associated with locations of nodes physically close in the physical network (col. 5, lines 3-35); and identifying a subset of nodes in the target region closest

to the first node in the physical network based on the searching through the map (col. 5, lines 3-35).

As to claim 10, Tzamalouka teaches the method of claim 9, further comprising: determining distances from the source node to the subset of nodes; and selecting from the subset of nodes a node closest to the source node in the physical network based on the determined distances (col. 5, lines 3-35).

As to claim 11, Tzamalouka teaches the method of claim 10, further comprising: entering the selected closest node in a routing table for the source node, wherein the selected closest node is used by the source node to route messages to the target region (col. 5, lines 3-35).

As to claim 12, Tzamalouka teaches the method of claim 9, further comprising generating proximity information for nodes in the overlay network, the generated proximity information including the first proximity information and the proximity information for the map, wherein generating the proximity information comprises: selecting landmark nodes in the physical network; determining distances from a substantial number of nodes in the overlay network to the landmark nodes; determining locations in the physical network for the substantial number of nodes based on the determined distances to the landmark nodes (col. 5, lines 3-35).

As to claim 13, Tzamalouka teaches the method of claim 12, wherein the locations comprise landmark vectors for the substantial number of nodes, wherein the landmark vectors include components representing distances from each of the substantial number of nodes to each of the landmark nodes (col. 5, lines 3-35).

As to claim 14, Tzamalouka teaches the method of claim 9, further comprising: identifying a location of a node in the target region in the overlay network storing the map; and transmitting a map lookup request to the node in the target region (col. 5, lines 3-35).

As to claim 23, Tzamalouka teaches a node in an overlay network, wherein the overlay network is a logical representation of a physical network, the node comprising: means for determining first proximity information associated with a location of the node in the network (col. 5, lines 3-35); means for searching through a map associated with a region of the overlay network using the first proximity information, wherein the map includes proximity information associated with locations of other nodes physically close in the physical network (col. 5, lines 3-35); and means for identifying a routing node in the region of the overlay network based on the searching through the map, wherein the routing node is a node in the region physically closest to the node relative to other nodes in the region (col. 5, lines 3-35).

As to claim 24, Tzamalouka teaches the node of claim 23, wherein the node comprises means for storing routing information for the routing node in a routing table, such that messages transmitted to the region of the routing node are transmitted to the routing node (col. 5, lines 3-35).

As to claim 25, Tzamalouka teaches the node of claim 23, further comprising: means for storing the map for the region; and means for updating the stored map in response to detecting predetermined changes to the network (col. 5, lines 3-35).

As to claim 26, Tzamalouka teaches the method of claim 1, further comprising: for each of the first node and the nodes in the region, identifying an overlay node based on proximity of the respective node; and for each of the first node and the nodes in the region, storing the

proximity information in the respective overlay node, wherein nodes physically close based on their proximity information are stored in overlay nodes that are close in the overlay network (col. 5, lines 3-35).

As to claim 27, Tzamalouka teaches the method of claim 27, further comprising retrieving the map from the overlay node storing the proximity information for one or more of the nodes in the region (col. 5, lines 3-35).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,862,500 to Tzamalouka in view of the Paper entitled "Building Low-maintenance Expressways for P2P Systems" by Zhang (copyrighted in 2002, part of IDS filed on 1/29/2004).

As to claim 4, Tzamalouka teaches the method of claim 3 however Tzamalouka does not explicitly teach an expressway content-addressable overlay network.

Zhang teaches the use of an overlay network is an expressway, content-addressable, overlay network, and the first node and the routing node are expressway routing nodes in the overlay network (First page, for example).

It would have been obvious to one of ordinary skill in the Computer Networking art at time of the invention to combine the teachings of Tzamalouka regarding overlay networks with the

teachings of Zhang regarding expressway content-addressable overlay networks because such networks improve efficiency (Zhang).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS B. BLAIR whose telephone number is (571)272-3893. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Douglas B Blair/
Primary Examiner, Art Unit 2442